Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

VOL. XIII. PART III.

JOURNAL

OF THE

INSTITUTE OF ACTUARIES.

NO. LXV.

OCTOBER, 1866.

LONDON:

CHARLES AND EDWIN LAYTON, 150, FLEET STREET;

DEPOT FOR BOOKS ON ASSURANCE—LIFE, FIRE, & MARINE.

EDINBURGH: JOHN GRANT. NEW YORK: H. BAILLIÈRE, 290, BROADWAY.

PARIS: J. B. BAILLIÈRE, LIBRAIRE, RUE HAUTEFEUILLE.

HAMBURG: W. MAUKE SÖHNE.

PRINTED BY C. & E. LAYTON, 150, FLEET STREET,

TO WHOM ALL COMMUNICATIONS FOR THE EDITOR SHOULD BE SENT, POST PAID.

Price 2*s*.

INSTITUTE OF ACTUARIES.

President.

CHARLES JELLICOE.

Vice-Presidents.

SAMUEL BROWN.
WILLIAM BARWICK HODGE.
ROBERT TUCKER.
W. S. B. WOOLHOUSE, F.R.A.S.

Fellows.

ARTHUR HUTCHESON BAILEY.
SAMUEL BROWN.
CHARLES JOHN BUNYON, M.A.
GEORGE CUTCLIFFE.
ARCHIBALD DAY.
PERCY MATTHEW DOVE.
WILLIAM EMMENS.
EDWIN HENRY GALSWORTHY.
WILLIAM JOHN HANCOCK.
AUGUSTUS HENDRIKS.
WILLIAM BARWICK HODGE.
CHARLES JELLICOE.
CHARLES TERRELL LEWIS.
JEREMIAH LODGE, B.A.
FRANK M'GEDY.
HENRY MARSHALL.
JAMES MEIKLE.
JOHN MESSENT.
EDWARD A. NEWTON, M.A.
WILLIAM POLLARD PATTISON.
ARTHUR PEARSON.
HENRY WILLIAM PORTER, B.A.
JOHN REDDISH.
HENRY AMBROSE SMITH.
WILLIAM SPENS.
THOMAS BOND SPRAGUE, M.A., F.S.S.
JOHN STOTT.
ROBERT TUCKER.
JOHN HILL WILLIAMS, F.S.S.
W. S. B. WOOLHOUSE, F.R.A.S.

The above constitute the Council for the current year.

MARCUS N. ADLER, M.A.
JOHN BULLER ALLAN.
JOHN BARCLAY BANNERMAN.
EDWARD WILLIAM BRABROOK, F.S.A.
WILLIAM MEREDITH BROWNE.
ALEXANDER BURNETT, F.S.S.
EDWARD BUTLER.
THOMAS CARR.
DAVID CHISHOLM.
CHARLES BUSH CLABON.
WILLIAM PALIN CLIREHUGH.
JOHN COLES, F.S.S.
JOHN ROSE CORMACK, M.D., F.R.S.E.
JOHN CRAIG.
JOSEPH STEVENS CUDLIP.
FRANK ALLAN CURTIS.
PHILIP CURTIS.
EDWARD CUTBUSH
HENRY DEVEREUX DAVENPORT.
THOMAS GOLDIE DICKSON.
JOHN HARRY EVENS.
ALEXANDER GLEN FINLAISON.
ALEXANDER JOHN FINLAISON.
ALEXANDER P. FLETCHER.
JOHN FRASER.
JAMES E. GALE.
WILLIAM SUTTON GOVER.
HENRY HARBEN.
H. S. HAWKINS.
JENKIN JONES.
WILLIAM KING.
CLAUDE GEORGE LAING.
SAMUEL LINN LAUNDY.
JOHN LAURENCE.
CHARLES LUCIUS LAWSON.
EDWIN LENDON.
JOHN ELPHICK LEYLAND, F.S.S.
WILLIAM THOMAS LINFORD.
ROBERT JOHN LODGE.
WILLIAM MATTHEW MAKEHAM.
JOSIAH MARTIN.
DONALD MACGILLIVRAY.
THOMAS MILLER.
WILLIAM LEWIN NEWMAN.
WILLIAM NEWMARCH, F.R.S.
GEORGE HENRY PINCKARD.
ALEXANDER GILLESPIE RAMSAY.
WILLIAM RATRAY.
WILLIAM BRIDGES ROW, B.A.
PHILIP SCOONES.
EBENEZER ERSKINE SCOTT.
GEORGE SCOTT.
FREDERICK GARLE SMITH.
HENRY WILLIAM SMITH.
COLONEL JOHN THOMAS SMITH.
WILLIAM SMITH.
GEORGE STEWART.
JAMES TERRY.
JAMES MICHAEL TERRY.
ROBERT THOMSON.
JOSEPH TODHUNTER.
THOMAS WALKER, B.A.
JAMES M. WILSON
ROBERT WILSON.
SAMUEL YOUNGER.

Honorary Secretaries.

ARCHIBALD DAY.
JOHN HILL WILLIAMS.

Auditors.

GEORGE WILLIAM BERRIDGE.
RALPH PRICE HARDY.
BENJAMIN NEWBATT

Assistant Secretary.

FREDERICK GOVER.

Clerk.

WILLIAM FREDERICK PURDY.

[ENTERED AT STATIONERS' HALL.]

JOURNAL

OF THE

INSTITUTE OF ACTUARIES.

VOL. XIII.—PART III.

OCTOBER, 1866.

LONDON:
CHARLES AND EDWIN LAYTON,
150, FLEET STREET.
EDINBURGH: JOHN GRANT. NEW YORK: H. BAILLIÈRE, 290, BROADWAY.
PARIS: J. B. BAILLIÈRE, LIBRAIRE, RUE HAUTEFEUILLE.
HAMBURG: PERTHES, BESSER, & MAUKE.

[*The Council of the Institute of Actuaries of Great Britain and Ireland wish it to be understood, that while they consider it their duty to give, from time to time, publicity to certain of the papers presented to the Institute, they do not hold themselves responsible for the opinions put forward therein.*]

LONDON:
PRINTED BY CHARLES AND EDWIN LAYTON,
150, FLEET STREET AND 12 GOUGH SQUARE.

CONTENTS OF NO. LXV.

PAGE

On the Calculation of Life Contingencies. (Part II.) By Professor De Morgan.. 129

On the Construction of Tables by the Method of Differences. (Part II.) By Peter Gray, F.R.A.S., Honorary Member of the Institute of Actuaries 149

General Average. By Richard Morrison (concluded from p. 51) 161

A Budget of Paradoxes. By Professor De Morgan (continued from p. 54) 176

On the Value of Annuities payable Half-yearly, Quarterly, &c. By T. B. Sprague, Esq., M.A., Actuary of the Equity and Law Life Assurance Society 188

CORRESPONDENCE—

Letter from Mr. James R. Macfadyen on certain Formulæ in Mr. David Jones's Work on Annuities, &c. 199

NOTICE TO CORRESPONDENTS.

Communications for this *Journal* must be sent in at least one month prior to the day of publication, or their insertion will in all probability be deferred.